Course Syllabus

020DESGS5 – Solid Waste Management

1. **Course number and name:** 020DESGS5 – Solid Waste Management
2. **Credits and contact hours:** 2 credits – 17.5 hours
3. **Instructor's or course coordinator's name:** Antoine MEOUCHI
4. **Textbook and other supplemental material:**
   - **a.** Tchobanoglous, G., Theisen, H., & Vigil, S. A. (1993). Integrated solid waste management: engineering principles and management issues: McGraw-Hill.
   - **b.** Instructor's class notes.
5. **Specific course information**
   - **a. Catalog description:** A course dealing with municipal solid waste problems and treatment methods.
   - **b. Prerequisites:** Good knowledge of Excel.
   - **c. Required/Elective/Selected Elective:** Required major course for Water and Environment Specialty students
6. **Specific goals for the course**
   - **a. Specific outcomes of instruction:**

     By the end of the course, the student will be able to:
     - identify municipal solid waste quantities, composition and properties
     - identify municipal waste collection techniques
     - define municipal waste disposal techniques (incineration, landfilling, etc…)
     - calculate municipal solid waste disposal costs
     - identify recycling and reuse options (composting, source separation, etc…)
     - identify treatment methods for industrial and medical waste

   - **b. KPIs addressed by the course:**

KPI	a1	a2	c1	c2	c3	e1	e2
Covered	x	x	x	x	x	x	x
Assessed							
Give Feedback							

7. **Brief list of topics to be covered and approximate number of lectures:**
   - **a.** Sources, quantities generated and properties of municipal solid waste (3 hours)
   - **b.** Municipal waste collection techniques (1.5 hours)
   - **c.** Public road cleaning techniques (1.5 hours)
   - **d.** Municipal waste disposal techniques: landfilling and incineration (5 hours)
   - **e.** Waste recycling and re-usage (composting, glass/plastic/paper re-use, etc…) (3 hours)
   - **f.** Waste disposal costs (1.5 hours)
   - **g.** Industrial and medical waste collection and treatment (2 hours)